

# THE HERBACEOUS ANGIOSPERM FLORA OF MAHONING COUNTY, OHIO<sup>1, 2</sup>

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## ABSTRACT

A checklist of the herbaceous angiosperms of Mahoning County, Ohio, based upon field observations and collections made during the summer of 1967 and upon the holdings of four major Ohio herbaria are presented. The list represents 73 families, 284 genera, and 527 species, of which 101 species, from the author's collection, are new county records.

## INTRODUCTION

Mahoning County (fig. 1) is located in northeastern Ohio and adjoins Trumbull County on the north, Portage and Stark Counties on the west, Columbiana County on the south, and the Commonwealth of Pennsylvania on the east. It has an area of 422 square miles. The maximum elevation of the county is 1314 feet, found in Green Township, and the lowest elevation is 795 feet, found in Poland Township, giving a maximum relief of 519 feet. The county was established in 1846.

Mahoning County is located in the Glaciated Allegheny Plateau of the Appalachian Plateau Province of the Appalachian Highlands (Braun, 1950), and is underlain by sandstone bedrock formed during the Mississippian and Pennsylvanian Periods (Bownocker, 1947). Later, during the Pleistocene Epoch, the county was invaded by both the Illinoian and Wisconsin glaciers (White, 1953).

The county is drained by the Mahoning River and its tributaries, with the exception of a very small section of the northeastern corner which is drained by Yankee Creek. Both the Mahoning River and Yankee Creek flow into the Ohio River. The drainage pattern of the Mahoning River is unusual in that, due to glacial blocking, the course changes from northwest to northeast and finally to southeast, so that, because of the political boundaries of the county, it enters and leaves the county four times. Similar glacial action also caused several other rivers in the area to have their original directions of flow reversed (Stout, Ver Steeg, and Lamb, 1943). Because of impoundments in the drainage system of the Mahoning River, the county has seven major bodies of water (fig. 1).

Since the time of its early settlement, the northeastern corner of the county has remained primarily farmland. In recent years, however, most of the county has undergone rapid changes, owing to strip mining, to urbanization, and to increased population. The population of the county has increased from 300,480 in 1960, of which 212,192 were in cities (U.S. Bureau of Census, 1963), to an estimated population of 318,048 in 1967, of which 214,566 were in cities (Ohio Division of Economic Research, 1967). If this trend continues, the entire county should be almost completely urbanized in the near future. The need for making a floristic study of the area before any future changes occur, therefore, is obvious. One such change is the plan of the U.S. Army Corps of Engineers, announced in 1968, to make a reservoir out of "Egypt Swamp".

The purpose of this study, therefore, was to make a survey of the entire flora of Mahoning County. This county lies entirely within the Maple-Beech Forest Region of Ohio (Braun, 1950). Although reference has been made to the county in previous state or regional floristics works (Braun, 1961 and 1967; Schaffner, 1914 and 1932), no intensive work has been done on the flora of Mahon-

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ing County. Notes on the flora of Mill Creek Park are presented in a visitor's guide to the various features of the Park (Galaida, 1941), but no herbarium specimens are available for the species listed. Certain areas of the county were excluded from this present study: Mill Creek Park, an area of over 2000 acres, because it is heavily planted with exotic species; Mahoning Valley Sanitary District, a watershed area of over 2500 acres, because this area is planted mainly with pine trees; and all residential areas, which often contain exotic species.

A 512-acre section of the county, the northern third of what is locally known as "Egypt Swamp", was chosen by the author for intensive study. The area is located in Green Township (fig. 1) and consists of a broad valley with slopes averaging 20 degrees (maximum of 45 degrees) facing east and west. The area is bounded on the north by State Route 165 and on the south by Pine Lake Road.

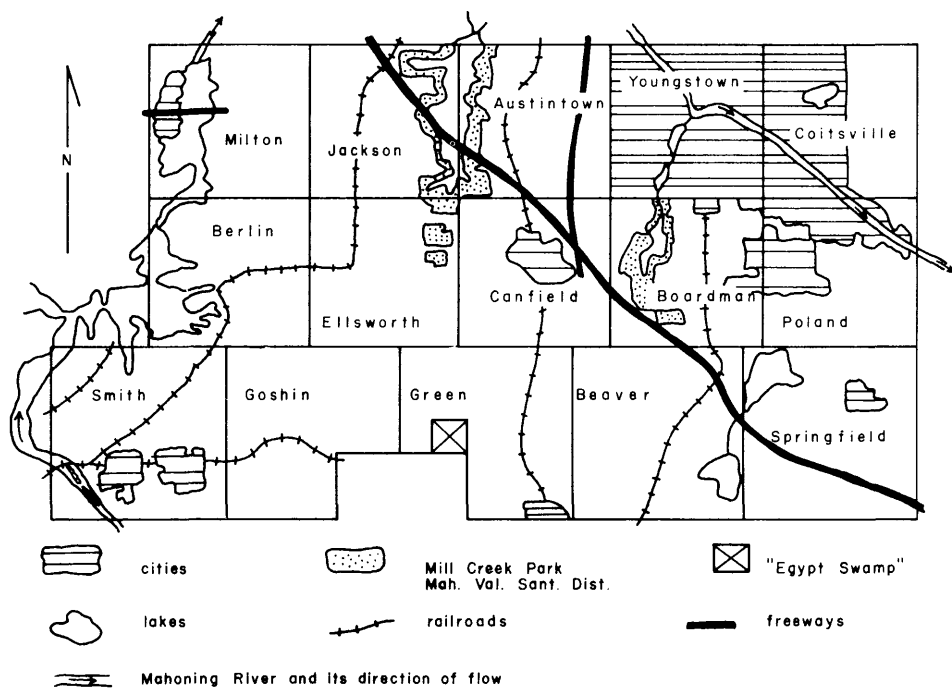


FIGURE 1. Map of Mahoning County showing location of townships and "Egypt Swamp".

Ecologically "Egypt Swamp" contains many different communities: oldfield, beech-maple woods, and roadside communities on all topographical features; powerline right-of-way and swamp communities on the bottomland and terraces; and strip-mine vegetation only on the upland. Because of the large number of habitats present, it is believed that this portion of "Egypt Swamp" is floristically representative of the various habitats of the entire county.

#### METHODS OF COLLECTION AND IDENTIFICATION

The main study and collection period was from March until September, 1967. During this time, weekly trips were made to "Egypt Swamp" and to other parts of the county as time and weather permitted. Trips were made to all the townships of the county, but only species that had not been previously taken in "Egypt Swamp" were collected in the other townships. At least one specimen of each species collected is deposited in the Bartley Herbarium of Ohio University (BHO), and the remainder are in the Herbarium at Youngstown State University (YUO).

Two manuals were used for identification: Gleason (1963) and Braun (1967). Specimens which presented particular difficulties in determination were checked against specimens in the Bartley Herbarium of Ohio University.

As a result of this study, a list of all plants observed or known in Mahoning County was prepared, and is presented below. The order of arrangement of the families in this check list follows Gleason (1963) for the dicotyledons and Braun (1967) for the monocotyledons. The tribes, genera, and species in the check list are arranged in alphabetical order under the families. In the listing of the taxa, the following information is given at the end of the scientific name for each specimen collected by the author: the collection number, the place of collection by township or topographical feature within "Egypt Swamp" (bottomland—"Bot"; terrace—"Ter"; upland—"Up"), the date of collection, the location of the specimen, and the degree of abundance. For those specimens collected by other collectors, the order of information is as follows: the collector, the collection number if any, the place of collection by township if known, the date of collection, and the location of the specimen. The location of such specimens is indicated by the international abbreviations for the following herbaria (Lanjouw and Stafleu, 1964): BHO (Bartley Herbarium of Ohio University), KE (Herbarium of Kent State University), OS (Herbarium of The Ohio State University), and YUO (Herbarium of Youngstown State University). All specimens were examined personally by the author. The author's collection resulted in 101 new county records, which are identified in the list by an asterisk.

The abundance of those species found in Mahoning County by the author is indicated by the use of the following terms.

Rare—few scattered locations

Sparsely—infrequently found

Common—frequently found

Abundant—large populations, regularly found

Species reported by others but not seen by the author carry no abundance labels.

Few specimens were collected in the county between 1880 and 1950 as indicated by the dates. Most have been collected since 1955 and the author's collection of 302 species is the most intensive work done to date.

## CATALOGUE OF THE HERBACEOUS ANGIOSPERM FLORA OF MAHONING COUNTY, OHIO

### MONOCOTYLEDONEAE

#### TYPHACEAE

*Typha angustifolia* L.

CFC669, Bot, July 1, 1967, BHO  
CFC689, Beaver Twp., July 1, 1967, YUO

Common

*Typha latifolia* L.

CFC670, Bot, July 1, 1967, BHO  
CFC795, Ter, July 18, 1967, BHO  
CFC705, Springfield Twp., July 18, 1967, BHO  
Common

#### SPARGANIACEAE

*Sparganium americanum* Nutt.

P. A. Bricker, Poland Twp., July 2, 1955, OS  
CFC520, Bot, May 31, 1967, BHO & YUO

*Sparganium eurycarpum* Engelm.

Abundant

#### ZOSTERACEAE

*Potamogeton crispus* L.

Tom S. Cooperrider, #7060, Jackson Twp., July 19, 1960, KE

*Potamogeton diversifolius* Raf.

Tom S. Cooperrider, #7015, Milton Twp., July 18, 1960, KE

#### ALISMATACEAE

*Alisma subcordatum* Raf.

CFC880, Bot, Aug. 5, 1967, BHO  
CFC860, Jackson Twp., Aug. 1, 1967, YUO  
Common

*Sagittaria latifolia* Willd.  
\**Sagittaria rigida* Pursh

CFO866, Bot, Aug. 5, 1967, BHO Common CFC  
CFC721, Jackson Twp., July 8, 1967, BHO Sparse

## HYDROCHARITACEAE

*Elodea nuttallii* (Planch.) St. John

Tom S. Cooperrider, #7039, Ellsworth Twp., July 19, 1960, KE

## GRAMINEAE (POACEAE)

*Agrostideae*

*Agrostis alba* L.

CFC675, Ter, July 1, 1967, BHO Common

*Agrostis perennans* (Walt.) Tuckerm.

CFC703, Springfield Twp., July 8, 1967, YUO

*Agrostis scabra* Willd.

Allison W. Cusick, Beaver Twp., Aug. 12, 1962, OS

*Alopecurus aequalis* Sobol.

Ervin M. Herrick, Poland Twp., June 30, 1960, OS

*Brachyelytrum erectum* (Schreb.) Beauv.

Allison W. Cusick, Springfield Twp., Aug. 12, 1962, OS

*Calamagrostis canadensis* (Michx.)

OS

Beauv.

Ervin M. Herrick, Poland Twp., June 30, 1960, OS

*Cinna arundinacea* L.

Ervin M. Herrick, Beaver Twp., June 12, 1963, OS

*Muhlenbergia frondosa* (Poir.) Fern.

CFC919, Ter, Aug. 17, 1967, BHO Common

*Muhlenbergia schreberi* Gmel.

CFC707, Springfield Twp., July 8, 1967, BHO

\**Muhlenbergia sobolifera* (Muhl.) Trin.

Common

*Phleum pratense* L.

Ervin M. Herrick, Goshen Twp., Sept. 10, 1960, OS

CFC835, Up, Aug. 1, 1967, BHO Sparse

CFC621, Ter, June 22, 1967, BHO

CFC601, Jackson Twp., June 18, 1967, YUO

Abundant

*Sporobolus asper* (Michx.) Kunth

Ervin M. Herrick, Berlin Twp., Sept. 4, 1962, OS

*Sporobolus neglectus* Nash

Ervin M. Herrick, Canfield Twp., Oct. 3, 1961, OS

*Sporobolus vaginiflorus* (Torr.) Wood

Ervin M. Herrick, Goshen Twp., Aug. 25, 1962, OS

*Andropogoneae*

*Andropogon virginicus* L.

Ervin M. Herrick, Goshen Twp., Sept. 10, 1960, OS

*Aveneae*

*Arrhenatherum elatius* (L.) Mert. &  
Koch

Ervin M. Herrick, Boardman Twp., June 30, 1960, OS

*Danthonia compressa* Aust.

OS

\**Danthonia spicata* (L.) Beauv.

Ervin M. Herrick, Poland Twp., June 30, 1960, OS

\**Deschampsia flexuosa* (L.) Trin.

CFC578, Jackson Twp., June 18, 1967, BHO

*Holcus lanatus* L.

Common

CFC554, Ter, June 8, 1967, BHO Sparse

Tom S. Cooperrider, #6969, Milton Twp., July 18, 1960, KE

*Sphenopholis intermedia* Rydb.

CFC522, Bot, June 8, 1967, BHO

CFC539, Ter, June 8, 1967, BHO Common

*Chlorideae*

*Eleusine indica* (L.) Gaertn.

Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS

*Festuceae*

*Bromus inermis* Leyss.

CFC602, Jackson Twp., June 18, 1967, BHO & YUO

\**Bromus japonicus* Thunb.

Sparse

CFC517, Bot. May 31, 1967, BHO

*Bromus purgans* L.

CFC547, Ter. June 8, 1967, BHO Common

*Bromus secalinus* L.

Ervin M. Herrick, Ellsworth Twp., June 13, 1963, OS

*Bromus tectorum* L.

OS

Ervin M. Herrick, Coitsville Twp., June 30, 1960, OS

*Cynosurus cristatus* L.

Ervin M. Herrick, Poland Twp., June 31, 1960, OS

*Dactylis glomerata* L.

Ernest W. Vickers, #2378, Ellsworth Twp., June 25, 1909, KE

*Eragrostis hypnoides* (Lam.) BSP.

CFC480, Bot, May 31, 1967, BHO & YUO

*Eragrostis pectinacea* (Michx.) Nees

CFC542, Ter, June 8, 1967, BHO & YUO Common

Allison W. Cusick, Beaver Twp., Sept. 15, 1960, OS

Allison W. Cusick, Springfield Twp., Aug. 12, 1962, OS

*Festuca obtusa* Biehler

CFC579, Jackson Twp., June 18, 1967, BHO

Common

- Glyceria canadensis* (Michx.) Trin.  
*Glyceria striata* (Lam.) Hitchc.  
*Poa annua* L.  
*Poa compressa* L.  
*Poa cuspidata* Nutt.  
\**Poa palustris* L.  
\**Poa pratensis* L.  
*Poa sylvestris* Gray  
*Poa trivialis* L.  
*Phragmites communis* Trin.  
*Triodia flava* (L.) Smyth
- Agropyron repens* (L.) Beauv.  
\**Elymus riparius* Wieg.  
*Elymus villosus* Muhl.  
*Elymus virginicus* L.  
*Hordeum jubatum* L.  
*Hystrix patula* Moench  
*Lolium perenne* L.
- Leersia oryzoides* (L.) Swartz  
*Leersia virginica* Willd.
- Digitalia ischaemum* (Schreb.) Muhl.  
*Digitalia sanguinalis* (L.) Scop.  
*Echinochloa crusgalli* (L.) Beauv.  
*Panicum capillare* L.  
*Panicum clandestinum* L.  
*Panicum dichotomiflorum* Michx.  
*Panicum dichotomum* L.  
*Panicum lanuginosum* Ell.  
*Panicum latifolium* L.  
\**Panicum linearifolium* Scribn.  
*Panicum stipitatum* Nash  
*Panicum virgatum* L.  
*Setaria glauca* (L.) Beauv.  
*Setaria viridis* (L.) Beauv.
- Anthoxanthum odoratum* L.  
*Phalaris arundinacea* L.
- Gareth E. Gilbert, Green Twp., July 22, 1955, OS  
CFC652, Bot, June 27, 1967, BHO Sparse  
Arthur S. Brooks, #3344, Jackson Twp., Oct. 22, 1962, OS  
CFC913, Bot, Aug. 17, 1967, BHO Common  
CFC392, Jackson Twp., May 4, 1967, BHO & YUO  
Sparse  
CFC481, Bot, May 31, 1967, BHO Common  
CFC631, Ter, June 22, 1967, BHO  
CFC696, Springfield Twp., July 8, 1967, YUO  
Common  
CGC481, Bot, May 31, 1967, BHO Common  
Ervin M. Herrick, Ellsworth Twp., June 12, 1963, OS  
Ervin M. Herrick, Ellsworth Twp., June 12, 1963, OS  
William C. Werner, Youngstown Twp., Aug., 1887, OS  
Ervin M. Herrick, Ellsworth Twp., Sept. 16, 1960, OS
- Hordeae*  
CFC632, Ter, June 22, 1967, BHO Common  
CFC848, Bot, Aug. 1, 1967, BHO Common  
Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
CFC825, Bot, July 25, 1967, BHO Common  
CFC699, Springfield Twp., July 8, 1967, BHO & YUO Common  
Ervin M. Herrick, Ellsworth Twp., June 12, 1963, OS  
Ronald W. Hathaway, #339, Boardman Twp., May 29, 1968, YUO
- Oryzeae*  
Ervin M. Herrick, Coitsville Twp., Aug. 14, 1960, OS  
CFC920, Bot, Aug. 17, 1967, BHO Common
- Panicaceae*  
Ervin M. Herrick, Milton Twp., Sept. 10, 1960, OS  
Ervin M. Herrick, Coitsville Twp., Aug. 14, 1960, OS  
CFC843, Bot, Aug. 1, 1967, BHO Abundant  
CFC929, Ter, Sept. 9, 1967, BHO Common  
CFC882, Bot, Aug. 5, 1967, BHO  
CFC899, Up, Aug. 8, 1967, BHO Abundant  
Arthur S. Brooks, #3347, Jackson Twp., Oct. 22, 1962, OS  
Ervin M. Herrick, Ellsworth Twp., June 12, 1963, OS  
CFC604, Jackson Twp., June 18, 1967, BHO & YUO  
CFC697, Springfield Twp., July 8, 1967, YUO & BHO Common  
CFC639, Ter, June 22, 1967, BHO Common  
CFC603, Jackson Twp., June 18, 1967, BHO  
Sparse  
Ervin M. Herrick, Berlin Twp., Sept. 4, 1962, OS  
Ervin M. Herrick, Canfield Twp., Oct. 3, 1961, OS  
CFC937, Bot, Sept. 9, 1967, BHO Common  
Tom S. Cooperrider, #8432, Goshen Twp., Sept. 20, 1960, KE
- Phalarideae*  
CFC535, Ter, June 8, 1967, BHO  
CFC497, Up, May 31, 1967, BHO  
CFC695, Springfield Twp., July 8, 1967, YUO  
Common  
Allison W. Cusick, Beaver Twp., Sept. 15, 1960, OS

## CYPERACEAE

- \**Bulbostylis capillaris* (L.) C. B. Clarke CFC856, Jackson Twp., Aug. 1, 1967, BHO & YUO  
Abundant
- \**Carex albursina* Sheldon CFC822, Bot, July 25, 1967, BHO Common
- \**Carex amphibola* Steud. CFC589, Jackson Twp., June 18, 1967, BHO  
Common
- \**Carex annectens* Bickn. CFC592, Jackson Twp., June 18, 1967, BHO  
Sparse
- \**Carex artitecta* Mackenz. CFC459, Up, May 25, 1967, BHO & YUO Sparse
- \**Carex communis* Bailey CFC394, Jackson Twp., May 4, 1967, BHO & YUO  
Sparse
- Carex convoluta* Mackenz. E. L. Moseley, June 16, 1896, OS
- Carex crinita* Lam. CFC514, Bot, May 31, 1967, BHO & YUO  
Abundant
- Carex festucacea* Schkuhr. Allison W. Cusick, Beaver Twp., June 11, 1961, OS
- Carex grayii* Carey CFC537, Ter, June 8, 1967, BHO Common
- Carex hirsutella* Mackenz. Ervin M. Herrick, Ellsworth Twp., June 12, 1963,  
OS
- Carex laevivaginata* (Kükenth.) Mackenz. Allison W. Cusick, Springfield Twp., June 11, 1961,  
OS
- Carex lupulina* Muhl. P. A. Bricker, Poland Twp., July 2, 1955, OS
- Carex lurida* Wahlenberg CFC589, Jackson Twp., June 18, 1967, BHO  
Common
- \**Carex molesta* Mackenz. CFC576, Jackson Twp., June 18, 1967, BHO  
Sparse
- Carex normalis* Mackenz. P. A. Bricker, Poland Twp., July 2, 1955, OS
- Carex pennsylvanica* Lam. Ervin M. Herrick, Ellsworth Twp., May 8, 1963,  
OS
- Carex rosea* Schkuhr. CFC492, Up, May 31, 1967, BHO
- Carex scoparia* Schkuhr. CFC536, Ter, June 8, 1967, BHO Common
- Carex squarrosa* L. William C. Werner, Youngstown Twp., July 2,  
1887, OS
- Carex stipata* Muhl. CFC590, Jackson Twp., June 18, 1967, BHO &  
YUO Abundant
- Carex tetanica* Schkuhr. CFC408, Bot, May 13, 1967, BHO & YUO  
Common
- Carex tribuloides* Wahlenb. Ronald W. Hathaway, #333, Boardman Twp., May  
15, 1968, YUO
- Cyperus esculentus* L. Ervin M. Herrick, Coitsville Twp., June 30, 1960,  
OS
- Cyperus ferruginescens* Boeckl. CFC864, Bot, Aug. 4, 1967, BHO Common
- Cyperus filiculmis* Vahl Allison W. Cusick, Beaver Twp., Aug. 27, 1961, OS
- Cyperus strigosus* L. Tom S. Cooperrider, Jackson Twp., July 19, 1960,  
KE
- Eleocharis acicularis* (L.) R. & S. CFC889, Ter, Aug. 8, 1967, BHO Abundant
- Eleocharis obtusa* (Willd.) Schultes. Allison W. Cusick, Springfield Twp., Sept. 15,  
1960, OS
- Scirpus atrovirens* Willd. CFC854, Bot, Aug. 1, 1967, BHO & YUO
- \**Scirpus cyperinus* (L.) Kunth. CFC628, Ter, June 22, 1967, BHO Abundant
- Scirpus polyphyllus* Vahl CFC639, Ter, June 22, 1967, BHO Abundant
- Scirpus validus* Vahl var. *creber* Fern. CFC914, Bot, Aug. 17, 1967, BHO & YUO  
Common
- CFC679, Ter, July 1, 1967, BHO Common
- CFC700, Springfield Twp., July 8, 1967, BHO  
Abundant

## ARACEAE

- Acorus calamus* L. Ervin M. Herrick, Coitsville Twp., June 30, 1960,  
OS
- Arisaema atrorubens* (Ait.) Blume. CFC461, Up, May 25, 1967, BHO & YUO  
Common
- Arisaema dracontium* (L.) Schott. Ervin M. Herrick, Ellsworth Twp., June 12, 1963,  
OS
- Arisaema triphyllum* (L.) Schott. Tom S. Cooperrider, #6840, Poland Twp., July 15,  
1960, KE
- \**Peltandra virginica* (L.) Schott & Endl. CFC724, Jackson Twp., July 8, 1967, BHO Sparse
- Symplocarpus foetidus* (L.) Nutt. CFC342, Bot, April 6, 1967, BHO Abundant

## LEMNACEAE

- Lemna minor* L. Tom S. Cooperrider, #6962, Milton Twp., July 18, 1960, KE  
*Wolffia columbiana* Karst Tom S. Cooperrider, #7062, Jackson Twp., July 19, 1960, KE

## COMMELINACEAE

- \**Tradescantia ohiensis* Raf. CFC654, Ter, June 27, 1967, BHO Sparse

## PONTEDERIACEAE

- Pontederia cordata* L. Tom S. Cooperrider, #7016, Milton Twp., July 18, 1960, KE

## JUNCACEAE

- Juncus acuminatus* Michx. CFC591, Jackson Twp., June 18, 1967, BHO Common  
*Juncus bufonius* L. Lindley Vickers, #2853, Youngstown Twp., Aug. 2, 1948, KE  
*Juncus effusus* L. CFC629, Ter, June 22, 1967, BHO  
 CFC593, Jackson Twp., June 18, 1967, YUO Abundant  
*Juncus tenuis* Willd. CFC600, Jackson Twp., June 18, 1967, BHO & YUO Common  
*Juncus platyphyllus* (Wieg.) Fern. Allison W. Cusick, Springfield Twp., Sept. 15, 1960, OS  
*Luzula bulbosa* (Wood) Rydb. Tom S. Cooperrider, #1834, Milton Twp., April 27, 1966, KE  
*Luzula carolinae* S. Wats. CFC344, Jackson Twp., April 8, 1967, BHO Abundant  
*Luzula echinata* (Small) F. J. Hermann Allison W. Cusick, #1834, Milton Twp., April 27, 1966, KE  
*Luzula multiflora* (Retz.) Lejeune CFC467, Up, May 25, 1967, BHO Abundant

## LILIACEAE

- Allium canadense* L. CFC861, Jackson Twp., Aug. 1, 1967, BHO & YUO Sparse  
 \**Allium tricoccum* Ait. CFC353, Ter, April 15, 1967, BHO Common  
 \**Asparagus officinalis* L. CFC555, Ter, June 8, 1967, BHO & YUO Common  
*Camassia scilloides* (Raf.) Cory Cheri K. Jones, #2, Austintown Twp., May 21, 1968, YUO  
*Disporum lanuginosum* (Michx.) Nicholson Ronald W. Hathaway, #53, Boardman Twp., May 14, 1967, YUO  
*Erythronium albidum* Nutt. James E. Madden, #36A, Poland Twp., April 3, 1967, YUO  
*Erythronium americanum* Ker. CFC353A, Bot, April 15, 1967, BHO  
 CFC359, Ter, April 15, 1967, BHO Abundant  
 CFC684, Bot, July 1, 1967, BHO  
 CFC676, Ter, July 1, 1967, BHO Abundant  
 \**Hemerocallis fulva* L. Ervin M. Herrick, Boardman Twp., Aug. 8, 1963, OS  
*Lilium canadense* L. CFC450B, Springfield Twp., May 23, 1967, BHO & YUO Common  
 YUO Common  
*Maianthemum canadense* Desf. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Medeola virginiana* L. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Polygonatum commutatum* (Schultes f.) A. Dietr. CFC464, Ter, May 25, 1967, BHO & YUO  
*Polygonatum pubescens* (Willd.) Pursh. CFC486, Up, May 31, 1967, BHO & YUO Common  
*Smilacina racemosa* (L.) Desf. Inga S. Worley, #33, Jackson Twp., May 13, 1965, YUO  
*Smilax herbacea* L. CFC610, Jackson Twp., June 18, 1967, BHO Sparse  
*Trillium erectum* L. CFC391, Boardman Twp., April 26, 1967, BHO Common  
*Trillium grandiflorum* (Michx.) Salisb. CFC474, Ter, May 25, 1967, BHO  
 CFC489, Up, May 31, 1967, BHO Abundant

- Trillium sessile* L. Ronald W. Hathaway, #181 & Mark Singer, #127,  
Poland Twp., April 26, 1968, YUO  
*Uvularia grandiflora* Sm. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Uvularia perfoliata* L. CFC483, Up, May 31, 1967, BHO & YUO  
Common  
*Uvularia sessilifolia* L. James E. Madden, #53, Poland Twp., April 23,  
1967, YUO

## DIOSCOREACEAE

- Dioscorea villosa* L. Ervin M. Herrick, Ellsworth Twp., July 20, 1963,  
OS

## IRIDACEAE

- Iris pseudacorus* L. CFC612, Jackson Twp., June 18, 1967, BHO  
Common  
*Sisyrinchium angustifolium* Mill. CFC507, Bot, May 31, 1967, BHO & YUO  
CFC529, Ter, June 8, 1967, BHO  
CFC681, Jackson Twp., July 1, 1967, YUO  
Common

## ORCHIDACEAE

- Cypripedium acaule* Ait. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Goodyera pubescens* (Willd.) R. Br. Ervin M. Herrick, Poland Twp., Aug. 8, 1963, OS  
*Habernaria lacera* (Michx.) Lodd. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Liparis lilifolia* (L.) Richard Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Spiranthes cernua* (L.) Richard. Allison W. Cusick, Beaver Twp., Sept. 15, 1960, OS

## DICOTYLEDONEAE

## URTICACEAE

- Boehmeria cylindrica* (L.) Sw. Tom S. Cooperrider, #6930, Milton Twp., July 18,  
1960, KE  
*Laportea canadensis* (L.) Gaud. CFC832, Up, Aug. 1, 1967, BHO Common  
*Pilea pumila* (L.) Gray CFC915, Bot, Aug. 17, 1967, BHO & YUO  
Common  
*Urtica dioica* L. CFC842, Bot, Aug. 1, 1967, BHO Common

## ARISTOLOCHIACEAE

- Asarum canadense* L. Tom S. Cooperrider, #6826, Poland Twp., July 15,  
1960, KE

## POLYGONACEAE

- Polygonum arifolium* L. CFC916, Ter, Aug. 17, 1967, BHO Sparse  
*Polygonum aviculare* L. CFC971, Jackson Twp., Sept. 25, 1967, BHO  
Abundant  
\**Polygonum convolvulus* L. CFC834, Up, Aug. 1, 1967, BHO Abundant  
*Polygonum hydropiperoides* Michx. Tom S. Cooperrider, #7036, Ellsworth Twp., July  
19, 1960, KE  
*Polygonum lapathifolium* L. CFC851, Bot, Aug. 1, 1967, BHO Abundant  
\**Polygonum orientale* L. CFC941, Green Twp., Sept. 9, 1967, BHO & YUO  
Rare  
*Polygonum pensylvanicum* L. CFC845, Bot, Aug. 1, 1967, BHO  
CFC900, Up, Aug. 8, 1967, BHO Common  
*Polygonum persicaria* L. CFC911, Bot, Aug. 1, 1967, BHO Common  
*Polygonum punctatum* Ell. CFC932, Bot, Sept. 9, 1967, BHO Common  
*Polygonum sagittatum* L. CFC926, Bot, Sept. 9, 1967, BHO Sparse  
*Polygonum scandens* L. CFC924, Bot, Sept. 9, 1967, BHO Common  
*Polygonum virginianum* L. CFC837, Ter, Aug. 1, 1967, BHO & YUO  
CFC833, Up, Aug. 1, 1967, BHO Common  
*Rumex acetosella* L. CFC404, Bot, May 13, 1967, BHO  
CFC421, Ter, May 13, 1967, BHO Common  
*Rumex crispus* L. CFC651, Bot, June 27, 1967, BHO  
CFC702, Springfield Twp., July 8, 1967, YUO  
Common  
*Rumex obtusifolius* L. CFC660, Ter, June 27, 1967, BHO Common  
*Rumex verticillatus* L. Tom S. Cooperrider, #6933, Milton Twp., July 18,  
1960, KE



## CHENOPODIACEAE

- \**Atriplex patula* L. CFC942, Ellsworth Twp., Sept. 9, 1967, BHO  
Sparse  
*Chenopodium album* L. CFC862, Bot, Aug. 5, 1967, BHO Abundant  
*Chenopodium glaucum* L. Tom S. Cooperrider, #7043, Jackson Twp., July 19, 1960, KE

## AMARANTHACEAE

- Acnida altissima* Riddell Allison W. Cusick, Beaver Twp., Aug. 12, 1962, OS  
\**Amaranthus retroflexus* L. CFC885, Bot, Aug. 5, BHO  
CFC927, Ter, Sept. 9, 1967, BHO Abundant  
\**Amaranthus albus* L. CFC966, Jackson Twp., Sept. 25, 1967, BHO & YUO Rare

## PHYTOLACCACEAE

- Phytolacca americana* L. CFC677, Ter, July 1, 1967, BHO Common

## AIZOACEAE

- Mollugo verticillata* L. CFC973, Jackson Twp., Sept. 25, BHO Common

## PORTULACACEAE

- \**Claytonia virginica* L. CFC346, Bot, April 10, 1967, BHO  
CFC360, Ter, April 15, 1967, BHO Abundant

## CARYOPHYLLACEAE

*Alsinoideae*

- \**Arenaria serpyllifolia* L. CFC505, Bot, May 31, 1967, BHO Common  
*Cerastium nutans* Raf. Allison W. Cusick, Beaver Twp., June 11, 1961, OS  
\**Cerastium vulgatum* L. CFC407, Bot, May 13, 1967, BHO & YUO  
CFC421A, Ter, May 13, 1967, BHO Common  
*Stellaria graminea* L. E. B. Williamson, June 1, 1900, OS  
*Stellaria longifolia* Muhl. Clara Weishaupt, Goshen Twp., June 16, 1956, OS  
*Stellaria media* (L.) Cyrill. CFC390, Bot, April 25, 1967, BHO  
CFC438, Ter, May 13, 1967, BHO Abundant

*Paronychioideae*

- \**Paronychia canadensis* (L.) Wood CFC840A, Bot, Aug. 1, 1967, BHO Common  
*Scleranthus annuus* L. Warren Knopp, Canfield Twp., June, 1960, OS

*Silenoideae*

- \**Dianthus armeria* L. CFC641, Bot, June 27, 1967, BHO & YUO  
Abundant  
\**Dianthus barbatus* L. CFC656, Ter, June 27, 1967, BHO Sparse  
*Lychnis alba* Mill. CFC659, Ter, June 27, 1967, BHO Common  
\**Lychnis coronaria* (L.) Desr. CFC655, Ter, June 27, 1967, BHO Sparse  
*Saponaria officinalis* L. CFC850, Bot, Aug. 1, 1967, BHO & YUO  
CFC881, Ter, Aug. 5, 1967, BHO Common  
\**Silene antirrhina* L. CFC606, Jackson Twp., June 18, 1967, BHO  
Common  
*Silene cucubalus* Wibel Tom S. Cooperrider, #7052, Jackson Twp., July 19, 1960, KE

## CERATOPHYLLACEAE

- Ceratophyllum demersum* L. Tom S. Cooperrider, #7061, Jackson Twp., July 19, 1960, KE

## NYMPHAEACEAE

- \**Nuphar advena* (Ait.) Ait. f. CFC790, Bot. July 18, 1967, BHO Sparse  
*Nymphaea odorata* Ait. CFC711, Beaver Twp., July 8, 1967, BHO  
Common

## RANUNCULACEAE

- Actaea alba* (L.) Mill. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Anemone quinquefolia* L. Michael C. Kniseley, #36, Canfield Twp., May 7, 1967, YUO  
\**Anemonella thalictroides* (L.) Spach CFC425, Ter, May 13, 1967, BHO  
CFC482, Up, May 13, 1967, BHO & YUO  
Common

- Aquilegia canadensis* L. Cheri K. Jones, #16, Austintown Twp., June 1, 1968, YUO
- Caltha palustris* L. CFC343, Bot, April 6, 1967, BHO & YUO  
Common
- Cimicifuga racemosa* (L.) Nutt. CFC805, Ter, July 18, 1967, BHO  
CFC715, Beaver Twp., July 8, 1967, YUO Sparse
- Clematis virginiana* L. CFC829A, Bot, July 25, 1967, BHO Sparse
- Delphinium ajacis* L. Tom S. Cooperrider #6855, Poland Twp., July 15, 1960, KE
- Delphinium exaltatum* Ait. Cheri K. Jones, #1, Austintown Twp., May 21, 1968, YUO
- \**Delphinium tricornis* Michx. CFC473, Ter, May 25, 1967, BHO Sparse
- Hepatica acutiloba* DC. Tom S. Cooperrider, #7889, Poland Twp., July 15, 1960, KE
- Hepatica americana* (DC.) Ker CFC350, Ter, April 13, 1967, BHO  
CFC838, Up, Aug. 1, 1967, BHO Common
- \**Ranunculus abortivus* L. CFC386, Bot, April 25, 1967, BHO  
CFC437, Ter, May 13, 1967, BHO & YUO  
CFC455, Up, May 25, 1967, BHO Common
- Ranunculus acris* L. CFC551, Ter, June 8, 1967, BHO & YUO  
CFC496, Up, May 31, 1967, BHO Common
- \**Ranunculus bulbosus* L. CFC453, Ter, May 25, 1967, BHO Sparse
- Ranunculus pensylvanicus* L. f. Allison W. Cusick, Beaver Twp., Aug. 27, 1961, OS
- Ranunculus recurvatus* Poir. CFC452, Ter, May 25, 1967, BHO Common
- \**Ranunculus repens* L. CFC419, Bot, May 13, 1967, BHO & YUO  
CFC451, Ter, May 25, 1967, BHO
- Ranunculus septentrionalis* Poir. James Madden, #43, Poland Twp., April 13, 1967, YUO
- Thalictrum dasycarpum* Fisch. & Ave'-Lall. Ervin M. Herrick, Poland Twp., June 10, 1961, OS
- Thalictrum dioicum* L. Tom S. Cooperrider, #6481, Poland Twp., July 15, 1960, KE
- Thalictrum polygamum* Muhl. CFC642, Bot, June 27, 1967, BHO
- Thalictrum revolutum* DC. CFC619, Ter, June 22, 1967, BHO Common  
Clara Weishaupt, Goshen Twp., June 16, 1956, OS
- BERBERIDACEAE
- Caulophyllum thalictroides* (L.) Michx. Tom S. Cooperrider, #6890, Poland Twp., July 15, 1960, KE
- Podophyllum peltatum* L. CFC540, Ter, June 8, 1967, BHO  
CFC498, Up, May 31, 1967, BHO & YUO  
Abundant
- PAPAVERACEAE
- \**Chelidonium majus* L. CFC530, Bot, June 8, 1967, BHO  
CFC532, Ter, June 8, 1967, BHO & YUO Sparse
- Sanguinaria canadensis* L. Gayle J. Grover, #26, Poland Twp., April 25, 1967, YUO
- FUMARIACEAE
- \**Dicentra canadensis* (Goldie) Walp. CFC389, Ter, April 25, 1967, BHO Sparse
- \**Dicentra cucullaria* (L.) Bernh. CFC345, Bot, April 10, 1967, BHO  
CFC355, Ter, April 15, 1967, BHO Sparse
- CRUCIFERAE (BRASSICACEAE)
- \**Arabis laevigata* (Muhl.) Poir. CFC469A, Ter, May 25, 1967, BHO Common
- Barbarea vulgaris* R. Br. CFC413, Bot, May 13, 1967, BHO  
CFC435, Ter, May 13, 1967, BHO  
CFC395, Jackson Twp., May 4, 1967, YUO  
Common
- \**Capsella bursa-pastoris* (L.) Medic. CFC411, Bot, May 13, 1967, BHO & YUO  
Abundant
- \**Cardamine bulbosa* (Schreb.) BSP. CFC412, Bot, May 13, 1967, BHO & YUO  
CFC432, Ter, May 13, 1967, BHO Common
- Cardamine douglassii* (Torr.) Britt. CFC352, Up, April 15, 1967, BHO Abundant
- Cardamine pensylvanica* Muhl. Tom S. Cooperrider, #6854, Poland Twp., July 15, 1960, KE
- \**Dentaria diphylla* Michx. CFC387, Ter, April 25, 1967, BHO & YUO  
Common

- \**Dentaria laciniata* Muhl. CFC354, Bot, April 15, 1967, BHO  
CFC348, Ter, April 13, 1967, BHO  
CFC457, Up, May 25, 1967, BHO Abundant  
*Hesperis matronalis* L. Allison W. Cusick, Beaver Twp., June 11, 1961, OS  
*Lepidium campestre* (L.) R. Br. CFC399, Bot, May 13, 1967, BHO Sparse  
*Lepidium virginicum* L. CFC401, Bot, May 13, 1967, BHO  
CFC484, Ter, May 31, 1967, BHO & YUO  
Common  
\**Raphanus raphanistrum* L. CFC923, Jackson Twp., Sept. 2, 1967, BHO  
Sparse  
*Rorippa islandica* (Oeder) Borbas CFC596, Jackson Twp., June 18, 1967, BHO  
Common  
\**Rorippa sylvestris* (L.) Besser CFC667, Bot, July 1, 1967, BHO & YUO  
CFC901, Jackson Twp., Aug. 8, 1967, BHO  
Common  
\**Thlaspi perfoliatum* L. CFC501, Ter, May 31, 1967, BHO Common

## CRASSULACEAE

- Penthorum sedoides* L. Tom S. Cooperrider, #6927, Milton Twp., July 18,  
1960, KE  
*Sedum ternatum* Michx. CFC521, Bot, June 8, 1967, BHO Sparse

## SATIFRAGACEAE

- \**Chrysosplenium americanum* Schw. CFC349, Bot, April 13, 1967, BHO Sparse  
*Mitella diphylla* L. CFC388, Ter, April 25, 1967, BHO & YUO  
Common  
\**Saxifraga virginiana* Michx. CFC470, Ter, May 25, 1967, BHO Common  
*Tiarella cordifolia* L. Ronald W. Hathaway, #50, Boardman Twp., May  
14, 1967, YUO

## ROSACEAE

*Potentilleae*

- \**Filipendula rubra* (Hill) Robins. CFC784, Ter, July 18, 1967, BHO & YUO Rare  
*Fragaria vesca* L. Michael Kniseley, #30, Canfield Twp., May 7,  
1967, YUO  
*Fragaria virginiana* Duchesne CFC403, Bot, May 13, 1967, BHO Abundant  
*Geum canadense* Jacq. CFC643, Bot, June 27, 1967, BHO  
CFC622, Ter, June 22, 1967, BHO Common  
*Geum laciniatum* Murr. Clara Weishaupt, Goshen Twp., June 16, 1956, OS  
*Geum virginianum* L. Allison W. Cusick, Beaver Twp., Aug. 12, 1962, OS  
*Potentilla canadensis* L. Tom S. Cooperrider, #6784, Berlin Twp., July 15,  
1960, KE  
*Potentilla norvegica* L. CFC888, Ter, Aug. 8, 1967, BHO Common  
*Potentilla recta* L. CFC523, Bot, June 8, 1967, BHO & YUO  
Common  
*Potentilla simplex* Michx. CFC479, Bot, May 31, 1967, BHO  
CFC549, Ter, June 8, 1967, BHO Common

*Sanguisorbeae*

- Agrimonia gryposepala* Wallr. Allison W. Cusick, Beaver Twp., Aug. 12, 1962, OS  
*Agrimonia parviflora* Ait. CFC829, Bot, July 25, 1967, BHO Common

*Spiraeeae*

- Aruncus dioicus* (Walt.) Fern. William C. Werner, Youngstown Twp., July 2,  
1887, OS

## LEGUMINOSAE (FABACEAE)

*Hedysareae*

- Desmodium canadense* (L.) DC. CFC961, Ter, Sept. 25, 1967, BHO Common  
*Desmodium nudiflorum* (L.) DC. Ervin M. Herrick, Poland Twp., July 29, 1960, OS  
*Desmodium paniculatum* (L.) DC. Tom S. Cooperrider, #7006, Milton Twp., July 18,  
1960, KE

*Loteae*

- Lotus corniculatus* L. CFC500, Ter, May 31, 1967, BHO & YUO  
Common

- Amphicarpa bracteata* (L.) Fern.  
*Apios americana* Medic.
- Medicago lupulina* L.  
*Medicago sativa* L.  
*Melilotus alba* Desr.  
 \**Melilotus officinalis* (L.) Desr.  
*Trifolium agrarium* L.  
*Trifolium hybridum* L.  
*Trifolium pratense* L.  
*Trifolium repens* L.
- Lathyrus latifolius* L.  
*Vicia dasycarpa* Tenore
- Oxalis stricta* L.
- Geranium maculatum* L.
- Linum virginianum* L.
- Polygala sanguinea* L.
- Acalypha rhomboidea* Raf.  
*Acalypha virginica* L.  
 \**Euphorbia cyparissias* L.  
*Euphorbia maculata* L.  
 \**Euphorbia vermiculata* Raf.
- Impatiens biflora* Willd.  
*Impatiens pallida* Nutt.
- \**Malva verticillata* L.
- Hypericum mutilum* L.  
*Hypericum perforatum* L.  
*Hypericum prolificum* L.
- Phaseoleae*  
 CFC940, Ter, Sept. 9, 1967, BHO Common  
 Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS
- Trifolieae*  
 CFC516, Bot, May 31, 1967, BHO & YUO  
 CFC553, Ter, June 8, 1967, BHO Abundant  
 Tom S. Cooperrider, #6804, Berlin Twp., July 15, 1960, KE  
 CFC658, Ter, June 27, 1967, BHO Common  
 CFC524, Bot, June 8, 1967, BHO  
 CFC624, Ter, June 22, 1967, BHO Abundant  
 CFC573, Jackson Twp., June 18, 1967, BHO Common  
 CFC546, Ter, June 8, 1967, BHO Abundant  
 CFC544, Ter, June 8, 1967, BHO Abundant  
 CFC503, Bot, May 31, 1967, BHO Abundant
- Vicieae*  
 Tom S. Cooperrider, #6993, Milton Twp., July 18, 1960, KE  
 Tom S. Cooperrider, #7026, Ellsworth Twp., July 19, 1960, KE
- OXALIDACEAE  
 CFC928, Bot, Sept. 9, 1967, BHO  
 CFC584, Jackson Twp., June 18, 1967, YUO Abundant
- GERANIACEAE  
 CFC499, Ter, May 31, BHO & YUO Abundant
- LINACEAE  
 William C. Werner, Younstown Twp., July 3, 1887, OS
- POLYGALACEAE  
 CFC858, Jackson Twp., Aug. 1, 1967, BHO Sparse
- EUPHORBIACEAE  
 Allison W. Cusick, Beaver Twp., Sept. 15, 1960, OS  
 CFC969, Jackson Twp., Sept. 25, 1967, BHO Common  
 CFC478, Ter, May 31, 1967, BHO & YUO Abundant  
 Tom S. Cooperrider, #6780, Berlin Twp., July 15, 1960, KE  
 CFC972, Jackson Twp., Sept. 25, 1967, BHO Sparse
- BALSAMINACEAE  
 CFC869, Bot, Aug. 5, 1967, BHO  
 CFC672, Ter, July 1, 1967, BHO & YUO Abundant  
 CFC816, Bot, July 25, 1967, BHO  
 CFC673, Ter, July 1, 1967, BHO  
 CFC803, Up, July 18, 1967, BHO Common
- MALVACEAE  
 CFC922, Jackson Twp., Sept. 2, 1967, BHO & YUO Common
- HYPERICACEAE  
 Gareth E. Gilbert, Green Twp., July 22, 1955, OS  
 CFC648, Bot, June 27, 1967, BHO Common  
 Ervin M. Herrick, Austintown Twp., Sept. 13, 1955, OS

- Lechea racemulosa* Michx.  
*Viola blanda* Willd.  
*Viola canadensis* L.  
 \**Viola cucullata* Ait.  
 \**Viola eriocarpa* Schw.  
 \**Viola papilionacea* Pursh  
  
*Viola pubescens* Ait.  
 \**Viola rostrata* Pursh  
  
*Viola striata* Ait.  
*Viola sororia* Willd.
- Decodon verticillatus* (L.) Ell.  
*Lythrum salicaria* L.
- Circaea quadrisulcata* (Maxim.)  
 Franch. & Sav.  
*Epilobium hirsutum* L.  
*Epilobium strictum* Muhl.  
*Ludwigia palustris* (L.) Ell.  
*Oenothera biennis* L.  
 \**Oenothera perennis* L.  
 \**Oenothera tetragona* Roth
- Myriophyllum exalbescens* Fern.
- Aralia nudicaulis* L.  
*Aralia racemosa* L.  
*Panax quinquefolium* L.  
*Panax trifolium* L.
- \**Angelica atropurpurea* L.  
*Cicuta bulbifera* L.  
*Cicuta maculata* L.  
*Cryptotaenia canadensis* (L.) DC.  
*Daucus carota* L.  
*Erigenia bulbosa* (Michx.) Nutt.  
*Osmorhiza claytoni* (Michx.) Clarke  
*Osmorhiza longistylis* (Torr.) DC.  
*Pastinaca sativa* L.
- CISTACEAE  
 Ernest W. Vickers, Sept. 1892, OS
- VIOLACEAE  
 Tom S. Cooperrider, Poland Twp., July 15, 1960, KE  
 Ervin M. Herrick, Goshen Twp., June 17, 1964, OS  
 CFC441, Ter, May 13, 1967, BHO  
 CFC476, Up, May 25, 1967, BHO Common  
 CFC429, Bot, May 13, 1967, BHO  
 CFC442, Ter, May 13, 1967, BHO Common  
 CFC428, Bot, May 13, 1967, BHO  
 CFC443, Ter, May 13, 1967, BHO  
 CFC468, Up, May 25, 1967, BHO Common  
 Ervin M. Herrick, Poland Twp., June 10, 1961, OS  
 CFC444, Ter, May 13, 1967, BHO & YUO  
 Common  
 CFC430, Bot, May 13, 1967, BHO Common  
 Allison W. Cusick, #2165, Milton Twp., May 20, 1966, KE
- LYTHRACEAE  
 CFC906, Bot, Aug. 17, 1967, BHO Abundant  
 Allison W. Cusick, Beaver Twp., Aug. 12, 1962, OS
- ONAGRACEAE  
 CFC824, Bot, July 25, 1967, BHO  
 CFC797, Ter, July 18, 1967, BHO Common  
 Gareth E. Gilbert, Canfield Twp., July 25, 1955, OS  
 Tom S. Cooperrider, #7741, Beaver Twp., Aug. 5, 1960, KE  
 Tom S. Cooperrider, #7017, Milton Twp., July 18, 1960, KE  
 CFC870, Bot. Aug. 5, 1967, BHO Abundant  
 CFC507, Jackson Twp., June 18, 1967, BHO  
 Common  
 CFC572, Jackson Twp., June 18, 1967, BHO  
 CFC717, Berlin Twp., July 8, 1967, YUO Sparse
- HALORAGIDACEAE  
 Tom S. Cooperrider, #6938, Milton Twp., July 18, 1960, KE
- ARALIACEAE  
 Ervin M. Herrick, Poland Twp., June 20, 1960, OS  
 Tom S. Cooperrider, #6850, Poland Twp., July 15, 1960, KE  
 Tom S. Cooperrider, #6891, Poland Twp., July 15, 1960, KE  
 Ronald W. Hathaway, #32, Boardman Twp., May 5, 1967, YUO
- UMBELLIFERAE (APIACEAE)  
 CFC688, Beaver Twp., July 1, 1967, BHO  
 Common  
 Allison W. Cusick, Beaver Twp., Sept. 15, 1960, OS  
 CFC616, Bot, June 22, 1967, BHO Sparse  
 CFC635, Ter, June 22, 1967, BHO & YUO  
 Common  
 CFC789, Bot, July 18, 1967, BHO  
 CFC799, Ter, July 18, 1967, BHO Abundant  
 CFC1024, Youngstown Twp., April 4, 1968, YUO  
 Rare  
 CFC472, Ter, May 25, 1967, BHO  
 CFC488, Up, May 31, 1967, BHO Common  
 Ervin M. Herrick, Poland Twp., June 20, 1960, OS  
 CFC710, Beaver Twp., July 8, 1967, BHO & YUO  
 Common

- Sanicula canadensis* L.  
*Sanicula gregaria* Bickn.  
*Sanicula trifoliata* Bickn.  
 \**Sium suave* Walt.  
*Thaspium trifoliatum* (L.) Gray  
*Torilis japonica* (Houtt.) DC.  
*Zizia aurea* (L.) Koch
- Gareth E. Gilbert, Jackson Twp., July 22, 1955, OS  
 Tom S. Cooperrider, #6910, Milton Twp., July 18, 1960, KE  
 Ervin M. Herrick, Poland Twp., Aug. 8, 1963, OS  
 CFC883, Bot, Aug. 5, 1967, BHO Sparse  
 Ervin M. Herrick, Poland Twp., June 10, 1961, OS  
 CFC801, Ter, July 18, 1967, BHO & YUO  
 CFC898, Up, Aug. 8, 1967, BHO Common  
 Ervin M. Herrick, Poland Twp., April 28, 1963, OS
- ERICACEAE  
*Monotropa uniflora* L.  
*Pyrola elliptica* Nutt.
- Tom S. Cooperrider, #6909, Milton Twp., July 18, 1960, KE  
 R. H. Ingraham, Youngstown Twp., July 9, 1892, OS
- PRIMULACEAE  
*Lysimachia nummularia* L.  
*Lysimachia quadrifolia* L.  
*Lysimachia terrestris* (L.) BSP.  
*Steironema ciliatum* (L.) Raf.
- CFC647, Bot, June 27, 1967, BHO Common  
 Ervin M. Herrick, Green Twp., June 17, 1964, OS  
 CFC650, Bot, June 27, BHO Common  
 CFC686, Bot, July 1, 1967, BHO & YUO Common
- APOCYNACEAE  
 \**Apocynum androsaemifolium* L.  
 \**Apocynum cannabinum* L.
- CFC723, Boardman Twp., July 8, 1967, BHO Common  
 CFC664, Bot, July 1, 1967, BHO Common
- ASCLEPIADACEAE  
*Asclepias incarnata* L.  
*Asclepias syriaca* L.
- CFC787, Bot, July 18, 1967, BHO  
 CFC701, Springfield Twp., YUO Common  
 CFC 661, Bot, July 1, 1967, BHO  
 CFC808, Ter, July 18, 1967, BHO Common
- CONVOLVULACEAE  
*Convolvulus sepium* L.
- CFC615, Bot, June 22, 1967, BHO  
 CFC706, Springfield Twp., July 8, 1967, YUO Abundant  
 CFC788, Bot, July 18, 1967, BHO Sparse
- POLEMONIACEAE  
*Phlox divaricata* L.  
*Phlox paniculata* L.  
*Polemonium reptans* L.
- CFC426, Ter, May 13, 1967, BHO Common  
 Tom S. Cooperrider, #6950, Milton Twp., July 18, 1960, KE  
 Allison W. Cusick, #2150, Milton Twp., May 20, 1966, KE
- HYDROPHYLLACEAE  
*Hydrophyllum canadense* L.  
*Hydrophyllum virginianum* L.
- CFC636, Ter, June 22, 1967, BHO Common  
 CFC508, Bot, May 31, 1967, BHO  
 CFC538, Ter, June 8, 1967, BHO Common
- BORAGINACEAE  
 \**Cynoglossum officinale* L.  
*Echium vulgare* L.  
*Mertensia virginica* (L.) Pers.  
*Myosotis laxa* Lehm.
- CFC531, Ter, June 8, 1967, BHO Rare  
 CFC598, Jackson Twp., June 18, 1967, BHO & YUO Sparse  
 David W. Kananen, #93 & Geril Burlbough, #9, Poland Twp., April 17, 1968, YUO  
 CFC722, Boardman Twp., July 8, 1967, BHO  
 CFC693, Springfield Twp., July 8, 1967, YUO Sparse
- VERBENACEAE  
*Phyla lanceolata* (Michx.) Greene  
*Verbena hastata* L.  
*Verbena urticifolia* L.
- Allison W. Cusick, #3173, Milton Twp., Sept. 15, 1966, KE  
 CFC791, Bot, July 18, 1967, BHO Common  
 CFC853, Bot, Aug. 1, 1967, BHO  
 CFC877, Ter, Aug. 5, 1967, BHO Common

## LABIATAE (LAMIACEAE)

- Ajuga genevensis* L. CFC477, Ter, May 31, 1967, BHO Abundant  
*\*Blephilia hirsuta* (Pursh) Benth. CFC798, Ter, July 18, 1967, BHO Common  
*\*Collinsonia canadensis* L. CFC857, Jackson Twp., Aug. 1, 1967, BHO & YUO  
 Sparse  
*\*Glechoma hederacea* L. CFC363, Ter, April 15, 1967, BHO  
 CFC351, Up, April 13, 1967, BHO Abundant  
*\*Hedeoma pulegioides* (L.) Pers. CFC886, Jackson Twp., Aug. 5, 1967, BHO  
 Abundant  
*\*Lamium purpureum* L. CFC495, Up, May 31, 1967, BHO Common  
*\*Leonurus cardiaca* L. CFC657, Ter, June 27, 1967, BHO & YUO  
 Common  
*\*Mentha piperita* L. CFC852, Bot, Aug. 1, 1967, BHO & YUO  
 CFC963, Ter, Sept. 24, 1967, BHO  
 CFC693, Springfield Twp., July 8, 1967, YUO  
 Abundant  
*\*Monarda fistulosa* L. CFC786, Bot, July 18, 1967, BHO & YUO Sparse  
*Monarda media* Willd. Tom S. Cooperrider, #7730, Beaver Twp., Aug. 5,  
 1960, KE  
*Prunella vulgaris* L. CFC662, Bot, July 1, 1967, BHO  
 CFC796, Ter, July 18, 1967, BHO  
 CFC887, Jackson Twp., Aug. 5, 1967, BHO  
 Abundant  
*Pycnanthemum virginianum* (L.) Durand & Jackson Tom S. Cooperrider, #7012, Milton Twp., July 18,  
 1960, KE  
*Satureja vulgaris* (L.) Fritsch CFC671, Ter, July 1, 1967, BHO  
 CFC714, Green Twp., July 8, 1967, YUO Common  
*Scutellaria lateriflora* L. CFC904, Bot, Aug. 17, 1967, BHO & YUO  
 Common  
*\*Scutellaria galericulata* L. CFC694, Springfield Twp., July 8, 1967, YUO  
 Sparse  
*\*Stachys hispida* Pursh CFC685, Bot, July 1, 1967, BHO Sparse  
*Stachys tenuifolia* Willd. Tom S. Cooperrider, #6974, Milton Twp., July 18,  
 1960, KE  
*\*Teucrium canadense* L. CFC827, Bot, July 25, 1967, BHO Sparse

## SOLANACEAE

- Physalis heterophylla* Nees CFC625, Ter, June 22, 1967, BHO Common  
*Solanum carolinense* L. CFC649, Bot, June 27, 1967, BHO  
 CFC674, Ter, July 1, 1967, BHO Abundant

## SCROPHULARIACEAE

- Aureolaria flava* (L.) Farw. Tom S. Cooperrider, #6921, Milton Twp., July 18,  
 1960, KE  
*Chaenorrhinum minus* (L.) Lange Tom S. Cooperrider, #6801, Berlin Twp., July 15,  
 1960, KE  
*Chelone glabra* L. CFC931, Bot, Sept. 9, 1967, BHO & YUO Sparse  
*Gratiola neglecta* Torr. Tom S. Cooperrider, #7035, Ellsworth Twp., July  
 19, 1960, KE  
*Linaria vulgaris* Hill CFC925, Ter, Sept. 9, 1967, BHO Common  
*\*Lindernia dubia* (L.) Pennell CFC865, Bot, Aug. 5, 1967, BHO Common  
*Mimulus ringens* L. CFC907, Bot, Aug. 17, 1967, BHO & YUO  
 Common  
*Pedicularis canadensis* L. Nina Wiscott, #29, Canfield Twp., May 10, 1967,  
 YUO  
*Penstemon digitalis* Nutt. CFC645, Bot, June 27, 1967, BHO  
 CFC627, Ter, June 22, 1967, BHO Abundant  
*Penstemon hirsutus* (L.) Willd. Ervin M. Herrick, Poland Twp., June 20, 1960, OS  
*Scrophularia lanceolata* Pursh Ervin M. Herrick, Smith Twp., June 17, 1964, OS  
*Scrophularia marilandica* L. CFC840, Bot, Aug. 1, 1967, BHO  
 CFC917, Ter, Aug. 17, 1967, BHO Abundant  
*\*Verbascum blattaria* L. CFC640, Bot, June 27, 1967, BHO & YUO  
 CFC626, Ter, June 22, 1967, BHO Sparse  
*\*Verbascum thapsus* L. CFC792, Bot, July 18, 1967, BHO  
 CFC804, Ter, July 18, 1967, BHO Common  
*\*Veronica chamaedrys* L. CFC519, Bot, May 31, 1967, BHO Common  
*\*Veronica peregrina* L. CFC445, Ter, May 13, 1967, BHO Sparse

- \**Veronica persica* Poir. Mary Jane Focht, #111, Boardman Twp., May 12, 1967, YUO  
*Veronica officinalis* L. CFC518, Bot, May 31, 1967, BHO  
 CFC543, Ter, June 8, 1967, BHO Abundant  
 \**Veronica serpyllifolia* L. CFC397, Bot, May 13, 1967, BHO Common  
*Veronica scutellata* L. Tom S. Cooperrider, #6980, Milton Twp., July 18, 1960, KE  
 \**Veronicastrum virginicum* (L.) Farw. CFC813, Jackson Twp., July 20, 1967, BHO & YUO  
 Sparse

## OROBANCHACEAE

- Conopholis americana* (L.) Wallr. Ronald W. Hathaway, #97, Boardman Twp., July 11, 1967, YUO  
*Epifagus virginiana* (L.) Bart. CFC951, Bot, Sept. 24, 1967, BHO  
 CFC954, Ter, Sept. 24, 1967, BHO Abundant

## ACANTHACEAE

- Justicia americana* (L.) Vahl Almon N. Rood, #1934, Youngstown Twp., July 16, 1943, KE

## PLANTAGINACEAE

- \**Plantago lanceolata* L. CFC513, Bot, May 31, 1967, BHO  
*Plantago major* L. CFC550, Ter, June 8, 1967, BHO Common  
 Ervin M. Herrick, Coitsville Twp., June 30, 1961, OS  
*Plantago rugelii* Decne. CFC783, Ter, July 18, 1967, BHO  
 CFC815, Jackson Twp., July 20, 1967, YUO  
 Abundant

## RUBIACEAE

- Galium aparine* L. CFC406, Bot, May 13, 1967, BHO & YUO  
 CFC439, Ter, May 13, 1967, BHO  
 CFC456, Up, May 25, 1967, BHO Common  
*Galium asprellum* Michx. Ervin M. Herrick, Green Twp., July 26, 1964, OS  
*Galium circaezans* Michx. Ervin M. Herrick, Goshen Twp., June 17, 1964, OS  
*Galium concinnum* T. & G. CFC528, Bot, June 8, 1967, BHO & YUO  
 Common  
 \**Galium mollugo* L. CFC611, Jackson Twp., June 18, 1967, BHO & YUO  
 Rare  
*Galium pilosum* Ait. R. H. Ingraham, Youngstown Twp., July 9, 1892, OS  
*Galium triflorum* Michx. CFC823, Bot, July 25, 1967, BHO  
 CFC800, Ter, July 18, 1967, BHO Abundant  
*Galium tinctorium* L. Tom S. Cooperrider, #7003, Milton Twp., July 18, 1960, KE  
*Houstonia caerulea* L. CFC434, Ter, May 13, 1967, BHO Abundant

## VALERIANACEAE

- \**Valerianella chenopodifolia* (Pursh) DC. CFC511, Bot, May 31, 1967, BHO Sparse

## DIPSACACEAE

- Dipsacus sylvestris* Huds. CFC874, Bot, Aug. 5, 1967, BHO  
 CFC826, Bot, July 25, 1967, YUO

## CUCURBITACEAE

- \**Echinocystis lobata* (Michx.) T. & G. CFC817, Bot, July 25, 1967, BHO Sparse

## CAMPANULACEAE

- \**Campanula americana* L. CFC785, Ter, July 18, 1967, BHO  
 CFC820, Up, July 25, 1967, BHO Sparse

## LOBELIACEAE

- Lobelia inflata* L. CFC821, Ter, July 25, 1967, BHO  
 CFC855, Jackson Twp., Aug. 1, 1967, YUO  
 Abundant  
*Lobelia siphilitica* L. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
*Lobelia spicata* Lam. William C. Werner, Youngstown Twp., July 3, 1887, OS



## COMPOSITAE (ASTERACEAE)

*Heliantheae*

- Ambrosia artemisiifolia* L.  
 \**Ambrosia trifida* L.  
*Bidens aristosa* (Michx.) Britt.  
*Bidens cernua* L.  
*Bidens vulgata* Greene  
*Coreopsis tripteris* L.  
*Galinsoga ciliata* (Raf.) Blake  
  
 \**Helianthus decapetalus* L.  
*Helianthus divaricatus* L.  
*Helianthus giganteus* L.  
*Helianthus microcephalus* T. & G.  
*Helianthus tuberosus* L.  
*Heliopsis helianthoides* (L.) Sweet  
*Rudbeckia hirta* L.  
*Rudbeckia laciniata* L.  
*Rudbeckia triloba* L.  
*Silphium trifoliatum* L.  
*Verbesina alternifolia* (L.) Britt.  
  
*Xanthium strumarium* L.
- CFC983, Up, Aug. 8, 1967, BHO Abundant  
 CFC841, Bot, Aug. 1, 1967, BHO & YUO Abundant  
 CFC934, Bot, Sept. 9, 1967, BHO Abundant  
 Ervin M. Herrick, Goshen Twp., Oct. 10, 1960, OS  
 Ervin M. Herrick, Goshen Twp., Oct. 10, 1960, OS  
 Ervin M. Herrick, Milton Twp., Sept. 21, 1964, OS  
 CFC794, Ter, July 18, 1967, BHO  
 CFC583, Jackson Twp., June 18, 1967, YUO  
 Common  
 CFC873, Bot, Aug. 5, 1967, BHO Abundant  
 Ervin M. Herrick, Poland Twp., Aug. 8, 1963, OS  
 Ervin M. Herrick, Milton Twp., Sept. 10, 1960, OS  
 Ervin M. Herrick, Goshen Twp., Sept. 21, 1964, OS  
 Gareth E. Gilbert, Jackson Twp., July 22, 1955, OS  
 Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
 CFC718, Berlin Twp., July 8, 1967, BHO Common  
 CFC902, Bot, Aug. 17, 1967, BHO Common  
 Ervin M. Herrick, Milton Twp., Aug. 14, 1960, OS  
 Ervin M. Herrick, Milton Twp., Sept. 10, 1960, OS  
 CFC846, Bot, Aug. 1, 1967, BHO  
 CFC918, Ter, Aug. 17, 1967, BHO  
 CFC939, Ter, Sept. 9, 1967, BHO Common

## HELENIEAE

- Helenium autumnale* L. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS

## ANTHEMIDEAE

- Achillea millefolium* L. CFC638, Ter, June 22, 1967, BHO  
 CFC680, Jackson Twp., July 1, 1967, BHO & YUO  
 Abundant  
*Anthemis cotula* L. CFC609, Jackson Twp., June 18, 1967, BHO  
 Common  
*Artemisia ludoviciana* Nutt. Ernest W. Vickers, #1282, Berlin Twp., No Date,  
 KE  
*Chrysanthemum leucanthemum* L. CFC556, Bot, June 8, 1967, BHO & YUO  
 Abundant  
*Matricaria matricarioides* (Less.) Porter Ervin M. Herrick, Jackson Twp., June 12, 1963, OS  
*Tanacetum vulgare* L. Ervin M. Herrick, Poland Twp., Aug. 8, 1963, OS

*Senecioneae*

- Cacalia atriplicifolia* L. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
*Erechtites hieracifolia* (L.) Raf. CFC935, Bot, Sept. 9, 1967, BHO  
 CFC678, Ter, July 1, 1967, BHO Common  
*Senecio aureus* L. CFC431, Bot, May 13, 1967, BHO & YUO  
 CFC690, Springfield Twp., July 3, 1967, YUO  
 Abundant  
*Senecio obovatus* Muhl. CFC424, Ter, May 13, 1967, BHO & YUO Common  
*Senecio smallii* Britt. Tom S. Cooperrider, #6785, Berlin Twp., July 15,  
 1960, KE  
*Tussilago farfara* L. CFC332, Bot, March 30, 1967, BHO  
 CFC436, Up, May 13, 1967, BHO Abundant

*Astereae*

- Aster cordifolius* L. Ervin M. Herrick, Ellsworth Twp., Sept. 10, 1960,  
 OS  
*Aster divaricatus* L. CFC947, Poland Twp., Sept. 24, 1967, BHO  
 Common  
*Aster ericoides* L. Tom S. Cooperrider, #8431, Goshen Twp., Sept. 20,  
 1960, KE  
*Aster laevis* L. J. M. Speer, #407, Milton Twp., Sept. 6, 1961, OS  
*Aster lateriflorus* (L.) Britt. CFC958, Ter, Sept. 24, 1967, BHO Common  
*Aster macrophyllus* L. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
*Aster novae-angliae* L. CFC945, Coitsville Twp., Sept. 24, 1967, BHO  
 Common

- Aster pilosus* Willd.  
*Aster prenanthoides* Muhl.  
  
*Aster puniceus* L.  
*Aster sagittifolius* Willd.  
*Aster schreberi* Nees  
*Aster simplex* Willd.  
  
*Aster umbellatus* Mill.  
*Conyza canadensis* (L.) Cron.  
  
*Erigeron annuus* (L.) Pers.  
*Erigeron canadensis* (L.) Cron.  
  
*Erigeron philadelphicus* L.  
  
*Erigeron pulchellus* Michx.  
*Erigeron strigosus* Muhl.  
*Grindelia squarrosa* (Pursh) Dunal  
  
*Solidago altissima* L.  
*Solidago bicolor* L.  
  
*Solidago caesia* L.  
\**Solidago canadensis* L.  
  
*Solidago flexicaulis* L.  
*Solidago gigantea* Ait.  
*Solidago graminifolia* (L.) Salisb.  
  
*Solidago juncea* Ait.  
*Solidago nemoralis* Ait.  
  
*Solidago patula* Muhl.  
*Solidago rugosa* Mill.  
  
*Solidago uliginosa* Nutt.  
*Solidago ulmifolia* Muhl.  
  
\**Anaphalis margaritacea* (L.) Benth. & Hook.  
\**Antennaria neglecta* Greene  
*Antennaria plantaginifolia* (L.) Richards.  
*Gnaphalium obtusifolium* L.  
  
*Inula helenium* L.  
  
*Eupatorium fistulosum* Barratt  
*Eupatorium maculatum* L.  
*Eupatorium perfoliatum* L.  
*Eupatorium rugosum* Houtt.  
  
*Vernonia altissima* Nutt.
- CFC936, Ter, Sept. 24, 1967, BHO Common  
CFC948, Poland Twp., Sept. 24, 1967, BHO  
CFC938, Green Twp., Sept. 9, 1967, YUO  
Abundant  
CFC956, Ter, Sept. 24, 1967, BHO Common  
J. M. Speer, #406, Milton Twp., Sept. 6, 1961, OS  
Ervin M. Herrick, Poland Twp., Aug. 12, 1960, OS  
Allison W. Cusick, Springfield Twp., Sept. 15, 1960, OS  
Ervin M. Herrick, Goshen Twp., Sept. 10, 1960, OS  
CFC967, Jackson Twp., Sept. 25, 1967, BHO  
Common  
Gareth E. Gilbert, Green Twp., July 22, 1955, OS  
Tom S. Cooperrider, #7727, Green Twp., Aug. 5, 1960, KE  
CFC502, Bot, May 31, 1967, BHO  
CFC494, Ter, May 31, 1967, BHO Abundant  
Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
Clara Weishaupt, Goshen Twp., June 16, 1956, OS  
Ernest W. Vickers, #1423, Berlin Twp., July 11, 1915, KE  
CFC959, Ter, Sept. 24, 1967, BHO Common  
CFC949, Poland Twp., Sept. 24, 1967, BHO  
Sparse  
CFC952, Bot, Sept. 24, 1967, BHO Common  
CFC871, Bot, Aug. 5, 1967, BHO  
CFC943, Coitsville Twp., Sept. 24, 1967, YUO  
Common  
Ervin M. Herrick, Goshen Twp., Sept. 10, 1960, OS  
CFC908, Bot, Aug. 17, 1967, BHO Abundant  
CFC960, Ter, Sept. 24, 1967, BHO  
CFC946, Coitsville Twp., Sept. 24, YUO  
Common  
CFC719, Berlin Twp., July 8, 1967, BHO Common  
CFC962, Ter, Sept. 24, 1967, BHO  
CFC968, Jackson Twp., Sept. 25, 1967, YUO  
Common  
Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
CFC955, Ter, Sept. 24, 1967, BHO  
CFC950, Poland Twp., Sept. 24, 1967, YUO  
Common  
Tom S. Cooperrider, #7010, Milton Twp., July 18, 1960, KE  
Gareth E. Gilbert, Green Twp., July 22, 1955, OS
- Inuleae*  
  
CFC720, Jackson Twp., July 8, 1967, BHO  
Common  
CFC427, Ter, May 13, 1967, BHO & YUO  
Abundant  
Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
Ervin M. Herrick, Boardman Twp., Oct. 3, 1961, OS  
CFC904, Jackson Twp., Sept. 24, 1967, BHO  
Common
- Eupatorieae*  
  
CFC872, Bot, Aug. 5, 1967, BHO Common  
Allison W. Cusick, Beaver Twp., Aug. 27, 1961, OS  
CFC875, Bot, Aug. 5, 1967, BHO Sparse  
Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS
- Vernonieae*  
  
CFC905, Bot, Aug. 17, 1967, BHO  
CFC890, Ter, Aug. 8, 1967, BHO Sparse

- Arctium lappa* L. Ervin M. Herrick, Ellsworth Twp., Sept. 10, 1960, OS  
 \**Arctium minus* Schk. CFC970, Jackson Twp., Sept. 25, 1967, BHO  
 Common  
*Cirsium arvense* (L.) Scop. CFC653, Bot, June 27, 1967, BHO  
 CFC698, Springfield Twp., July 8, 1967, YUO  
 Common  
*Cirsium discolor* (Muhl.) Spreng. Tom S. Cooperrider, °6807, Poland Twp., July 15, 1960, KE  
 \**Cirsium pumilum* (Nutt.) Spreng. CFC892, Ter, Aug. 8, 1967, BHO  
 CFC897, Up, Aug. 8, 1967, BHO Common
- Cichorieae**  
*Cichorium intybus* L. CFC863, Bot, Aug. 5, 1967, BHO  
 CFC802, Ter, July 18, 1967, BHO Abundant  
 CFC548, Ter, June 8, 1967, BHO Common  
*Hieracium aurantiacum* L. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
*Hieracium paniculatum* L. CFC512, Bot, May 31, 1967, BHO  
*Hieracium pratense* Tausch CFC493, Ter, May 31, 1967, BHO Abundant  
*Hieracium scabrum* Michx. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
*Hieracium venosum* L. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Krigia biflora* (Walt.) Blake E. D. Brown, Youngstown Twp., 1893, OS  
*Lactuca biennis* (Moench) Fern. Allison W. Cusick, Beaver Twp., Aug. 27, 1961, OS  
*Lactuca canadensis* L. CFC644, Bot, June 27, 1967, BHO Common  
*Lactuca serriola* L. CFC876, Bot, Aug. 5, 1967, BHO Common  
*Prenanthes altissima* L. Ervin M. Herrick, Poland Twp., Aug. 14, 1960, OS  
 \**Sonchus arvensis* L. CFC868, Bot, Aug. 5, 1967, BHO  
 CFC692, Springfield Twp., July 8, 1967, YUO  
 Abundant  
*Sonchus asper* (L.) Hill Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Sonchus uliginosus* Bieb. Allison W. Cusick, Springfield Twp., Sept. 15, 1960, OS  
*Taraxacum officinale* Weber Ronald W. Hathaway, #25, Boardman Twp., April 22, 1967, YUO  
*Tragopogon dubius* Scop. CFC878, Bot, Aug. 5, 1967, BHO  
 CFC552, Ter, June 8, 1967, BHO & YUO Sparse  
*Tragopogon pratensis* L. Ervin M. Herrick, Poland Twp., June 30, 1960, OS  
*Tragopogon porrifolius* L. Ervin M. Herrick, Boardman Twp., June 30, 1960, OS

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